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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,146

07/13/2006

Raymond Joseph Elisabeth Habets

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EXAMINER

BITAR, NANCY

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2624

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/597,146	Applicant(s) HABETS, RAYMOND JOSEPH ELISABETH	
	Examiner NANCY BITAR	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,9,12-14 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,9,12-14 and 16-18 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's response to the last Office Action, filed 12/10/2009, has been entered and made of record.
2. Applicant has amended claims 1-6, 9 and 12-18. Claims 1-6, 9 and 12-18 are currently pending.
3. Applicant's arguments filed 3/10/2010 have been fully considered but are not persuasive. Applicant argues that Piet and Van Liere both disclose static measurement objects and the Piet and Van Liere, taken alone or in combination, fail to disclose or suggest "attaching a dynamic measurement object to a first graphic object displayed on a monitor, the dynamic measurement object including measurement data related to the first graphic object, detaching, via a user interface device, the dynamic measurement object from the first graphic object, and attaching, via the user interface device, the dynamic measurement object to a second graphic object displayed on the monitor, wherein the measurement data is modified to be related to the second graphic object," as recited in claim 1.

In response, Examiner first will refer to Pet et al that teaches : A measurement template containing a set of measurement points, which graphically represents relation between measurement entities and radiological anatomy, is retrieved and displayed adjacent to the digital image. The measurement points in the template are mapped on to the displayed image to perform

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geometrical measurements on the image. Pet et uses the user interface The user interface consists of a database, a controller and a graphics part. The controller reacts to events such as the user pressing a mouse button or running a dialog box, starting a command, addition of an object to the database, notification and modification of objects that other objects onto which they are based have changed etc. (i.e. modification)

Examiner used a secondary reference to teach the modification of the second graphic object. Van Liere to disclose:

Graphics objects used for measurements during routine viewing such as points, lines, angles and contours can be seen as being constructed from a sequence of points or drawn curves. This gives an incremental approach to graphics creation (paragraph [0027]). Van Liere clearly teaches the producing the angle value as well as the distance value where one graphic object which is the points on figure 4 and 5. Detaching the dynamic measurement is taught when the first point is being displayed than removed and vice versa (see paragraph [0045-0055]) . Moreover, the dynamic measurement object is taught by Van Liere wherein the “measurement values may be displayed either discretely or continuously in the measurement values window as the user moves the position of a point over the image (see paragraph [00016]) . It would have been obvious to modify the measurement data to be related to the secondary graphic object in order to facilitate the identification of measurement needed and desired. All remaining arguments are reliant on the aforementioned and addressed arguments and thus are considered to be wholly addressed herein.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6, 9, 12-14,16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plet et al (EP 1349098) in view of Van Liere (US 2002/0067340)

As to claim 1, Plet et al teaches a method of processing user interaction in a medical environment with a medical image for producing measurement data related to graphics on the medical image, (figure 2, paragraph [0095-0098]), the method comprising: attaching a dynamic measurement object including measurement data related to the first graphic object (In one embodiment, all user-requested measurement points are mapped prior to generating the measurement objects that depend on them. All measurement objects are highlighted on the digital sketch upon which a copy of the object is generated and the user is requested to drag and adjust the copy to its corresponding position in the actual radiographic image. When all measurement points are available, the depending measurement objects are generated and the result of the measurement operators is computed, paragraph [0062]); detaching via a user interface device the dynamic measurement object from the first graphic object (paragraph [0033-0035]). While Plet meets a number of the limitations of the claimed invention, as pointed out more fully above, Plet fails to specifically teach attaching via the user interface device the

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dynamic measurement object to a second graphic object displayed on the monitor wherein the measurement data modified to be related to the second graphic object.

Specifically, Van Liere et al. teaches the a cursor based interaction between two graphical objected wherein two sets of sequential graphic modes are being defined; receiving a medical image; displaying the medical image on a display device; receiving via a processor a first user input that indicates a selected location on the medical image and that indicates a selected set of sequential graphic modes; entering an initial mode of the selected set of sequential graphic modes and executing a set of predefined graphic operations based on the initial mode; and performing via the processor a continuous repetition process (i.e. modifying the measurement data) receiving a next sequential user input that indicates a next selected location on the medical image, and entering a next sequential mode of the selected set of sequential graphic modes and executing a set of predefined graphic operations based on the next sequential mode(i.e. modifying the measurement data); see figure 1 and paragraph [0027-0052]). It would have been obvious to one of ordinary skill in the art to use the second object interaction in Plet et al in order to provide inherent manipulation of the images, without necessitating overlay items that would obscure the image thus having a clear and accurate comprehensive access of measurement in the medical workstation. Therefore, the claimed invention would have been obvious to one of ordinary skill in the art at the time of the invention by applicant.

As to claim 2, Plet et al teaches the method according to claim 1, wherein the user interface device is cursor controlled and the medical image and first and second graphics object is displayed on the monitor of a medical examination apparatus (display, figure 1, the enhanced placement mode is achieved by hinting the user as to the position of a constituent point of a

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measurement object by confining the placement to a set of points or objects defined by the graphical construction defined so far. These set of geometric objects are called the geometric loci of a geometric problem, paragraph [0068-0074]; see also Van Liere et al. paragraph [0032-0042]).

As to claim 3, Plet et al teaches the method according to claim 1, wherein the first and second graphic object are associated with at least one anatomical structural element of medical objects on said medical image (In this representation the anatomy is schematically depicted as a collection of outlines of bone and other radiologically well-manifested landmarks. The measurement objects are drawn superimposed onto the anatomical outlines, paragraph [0045]).

As to claim 4, Plet et al teaches the method according to claim 1, wherein the measurement data is derived from the first and second graphic object (paragraph [0054-0055]).

As to claim 5, Plet et al teaches the method according to claim 4, wherein the graphic object is a point, a line, a curve, two intersecting lines, or a contour (line, circle, ellipse, analytic curve, paragraph [0050]).

As to claim 6, Plet et al teaches the method according to claim 4, wherein the measurement data that is derived from the first and second graphics object is a line length, a curve length, an angle delimited by two intersecting lines, an area delimited by a contour or a profile along a line or a curve, a diameter, a perimeter, an area, a volume, or grey value profiles (figure 3; pure measurement operation and arithmetic measurement operations, paragraph [0050-0053]; see also Van Liere et al. paragraph [0047-0050]).

As to claim 9, Plet et al teaches the method according to claim 1 wherein the attaching the dynamic measurement object to the first and second graphic objects further comprising

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determining a nearest one of the first and second graphic objects supporting a specific measurement associated with the dynamic measurement object (paragraph [0045]; Setting snap to lines or other graphical entities has a similar effect: e.g. the line tangent to a circle (there are two such lines) through a given point is selected when moving the cursor nearest towards the intended tangent point, and a mouse click will teleport the cursor onto that tangent point on the circle, after which drawing of the tangent line completes the drawing of the line measurement object, paragraph [0050-0052]; paragraph [0071]).

The limitation of claims 12-14 has been addressed.

As to claims 16-18, Van Liere teaches the method according to claim 1, wherein the first and second graphic are contour curves and the length of the contour curves (Graphics objects used for measurements during routine viewing such as points, lines, angles and contours can be seen as being constructed from a sequence of points or drawn curves, paragraph [0027]; figure 8 and 9)

Allowable Subject Matter

6. Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NANCY BITAR whose telephone number is (571)270-1041. The examiner can normally be reached on Mon-Fri (7:30a.m. to 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on 571-272-7415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nancy Bitar/
Examiner, Art Unit 2624

/Wes Tucker/
Primary Examiner, Art Unit 2624